

ARCHITECTURAL PROGRAM STATEMENT

Wayne and Kay Woolsey Hall Home of W. Frank Barton School of Business

Wichita State University

February 2019



WSU Wayne and Kay Woolsey Hall Home of W. Frank Barton School of Business Program Statement

SCOPE

This is a program document for a new building, Wayne and Kay Woolsey Hall, Home of W. Frank Barton School of Business located on the campus of WICHITA STATE UNIVERSITY, in Wichita, Kansas.

EXECUTIVE SUMMARY

A series of work sessions were held with all of the departments, centers, and support groups to be located in the building. Approximately 50 faculty, department heads, support staff, and interested parties participated in the work sessions held over four days. A list of recurring themes was developed from the work sessions. These themes include, in no particular order:

- The need for a stronger and new image for the School of Business
- Technology throughout the building
- Accessibility concerns
- Inadequate classrooms, both quantity and quality
- Inadequate faculty offices, both quantity and quality
- Business Centers on the lower floors
- Faculty on the upper floors
- All faculty offices to be at the exterior glass
- Decentralize faculty within the five departments
- Mix faculty and classrooms on the same floor(s)
- Open space on the interior of the building
- Lots of natural light in the building
- Large Multi-Use space for guest lecturers and formal events – anticipated 300 seat tiered lecture theater
- Space for Student Organizations

- Faculty/staff lounge in the building
- Parking dedicated for visitors to the Business Centers
- Some food service “snacks” in the building
- Flexibility for ALL classrooms and throughout the facility
- Strong Pedestrian link(s) with other buildings on campus

The building program was originally created in 2014 and was revised in 2018 to be in line with a total project cost of \$50 million. The total project cost includes construction, site development, fixtures furniture and equipment, information technology, audio visual equipment, door security, moving costs, professional fees, WSU Foundation costs, State of Kansas OFPM fee, and contingency.

SITE CONSIDERATIONS

The site for the Project is east of Mid Campus Drive (south of the YMCA/Student Wellness Facility and north of the Food Truck plaza/pond). The location provides a strong connection between the existing academic building locations and the partnership buildings to the east.

Considerations for the site include:

- It is the intent that the site would not have any vehicular traffic that separates the building from the campus expansion to the east. The building shall be orientated to enhance the already established N/S pedestrian mall that connects buildings from 17th Street to Braeburn Square.
- It is understood that previous storm water detention projects already completed will accommodate the City of Wichita’s storm water quality and quantity regulations and that additional detention will not be needed for this facility.
- It is understood that access to approximately 100 adjacent parking stalls will be needed for this facility.

ARCHITECTURAL CONCEPT & CONSIDERATIONS

A successful exterior appearance for this facility should complement the “family” of construction materials that is currently used on the Wichita State University campus while imparting the “new” image for the functions that will occupy the building.

An important part of the current and future business and Wichita State University dialogue needs to include social, economic, and environmental sustainability. The building should be a productive environment for today’s environmentally savvy students, faculty, and staff while creating an opportunity to incorporate a sustainable philosophy into curriculum and culture. The new facility should present an academic and business model for lowered operating costs and increased operating efficiencies while improving the health, well-being, and productivity of students, faculty, and visitors in the building.

Although LEED certification is not a design requirement for the building, it has been determined that the building should meet (or exceed) “LEED Silver” standards based on conversations with the President’s Executive Committee. Some of the sustainable solutions that should be considered include:

- High-efficiency mechanical system
- Daylight design and electronic light dimming systems
- Occupancy sensors
- Low-flow fixtures
- Locally sourced, renewable or recycled building materials, where possible
- Low-VOC and healthy building materials
- Use of exterior shading devices on sun-exposed elevations of the building

Additional considerations for the architectural concept include:

- The building should allow for visually open spaces on all floors.
- The upper floors of the building allow for student/faculty interaction with wide open corridors and casual seating throughout the building.
- Flexibility in all of the academic environments is very important for the diversity of teaching styles. Except for the tiered classrooms and auditorium, all furniture in the classrooms should be freestanding and mobile.
- The facility should have integrated vertical and horizontal chase systems for flexibility and adaptability of mechanical, electrical, plumbing and telecommunications systems.

- Security in an open environment will be very important. All faculty/adjunct offices, academic spaces and support rooms should have locking doors.
- Security for the building at exterior doors will follow Wichita State University guidelines.
- Access to the lower level should be provided as a storm shelter for the occupants of the building.
- Flexibility for technology throughout the building will be important as academic technology changes during the life of the building.
- The building should have a minimum of two 5,000-pound capacity, elevators with combination passenger/freight service and landings at the four levels. The cabs are to be ADA compliant.
- A service elevator is shown in the west wing that allows for access to the lower floor, which will be used for HVAC equipment, fire pump, and minimal storage. The widened basement corridor will also be used as a storm shelter area.
- Adequate storm shelter area shall be provided to accommodate the building occupants in the case of severe weather.

ENGINEERING CONSIDERATIONS

Structural Systems

The structural system is anticipated to be a conventional steel system with the preference for cast-in-place concrete for vibration, sound control, and longevity.

Floor loading is to be dead load plus 100 pounds per square foot to provide flexibility in repurposing floor space for unknown future needs.

Floor construction is anticipated to be composite steel beams with composite steel deck and reinforced concrete topping

Roof construction is anticipated to be steel joists on steel beams and steel columns with a steel roof deck.

Civil Infrastructure

Domestic Water: An existing water loop is available in the perimeter loop road for this Project. An extension of the loop shall be installed around the building to provide adequate fire protection and fire hydrant coverage. Construction of the water loop shall be in accordance with the City of Wichita standards and in compliance with KDHE regulations.

Sanitary Sewer: The connection of the proposed sewer service shall be constructed in accordance with the City of Wichita standards and specifications for sanitary sewer construction and shall be in compliance with KDHE regulations.

Storm Sewer: Extensions will be required to accommodate the collection of storm water runoff from the proposed building and parking lot improvements in accordance with the City of Wichita's regional storm water management policy. In accordance with this policy, the storm water management requirements improved on developments shall be based on the existing impervious condition of the subject tract, in comparison to the amount of impervious surface proposed by the new development.

Plumbing Systems

General Plumbing Fixtures: Shall be commercial grade fixtures, appropriate for use. Flush valves and lavatory faucets in areas utilized by the public shall be sensor operated.

Water Heating: Shall be gas-fired, storage-type hot water heaters. Provide both 110 degrees Fahrenheit distribution loop for general hand washing and a 140 degrees Fahrenheit distribution loop for other uses. Both loops shall be recirculated to maintain hot water at the point of use.

Mechanical Systems (HVAC)

The heating, ventilation, and air conditioning (HVAC) systems for the building must be configured for an appropriate amount of flexibility to accommodate changes in activities over time.

Central Plant: A central four-pipe (chilled and heating hot water) system is planned. The existing campus Central Plant does not have adequate capacity to serve this new building. To serve the proposed Business School building, this facility will utilize a standalone plant housed in this building (OptionM1).

Option M1: Generation of heating and cooling will be local to this building, with the boilers and pumps residing in the lower level of the building. Multiple boilers, chillers, and pumps shall be utilized to provide redundancy in the event of the failure of a single piece of equipment. Both the chilled and heating water systems shall utilize variable-volume plumbing with variable-speed drives for energy conservation. Air-cooled chillers located in an adequately unrestricted and enclosed area on the north of the building will provide cooling capacity.

Air-Handling Systems: Indoor central station air-handling units shall be utilized, located in the penthouse of the new building. This location will allow fresh air intake from above grade and reduce the need for areaways or additional duct chases for fresh air. This location will make air-side heat recovery practical. Academic spaces, offices, support areas, etc., shall be provided with their own air handling system to maintain segregation based on usage hours and redundancy needs. Consideration for humidifiers at the central air handlers to minimum 30 percent relative humidity is recommended. Each air system shall be provided with a variable-frequency drive and variable air volume (VAV) control. In the office and classroom spaces, single-duct VAV reheat or fan-powered VAV terminals with hot water heat shall be utilized.

Central Exhaust System: Shall be utilized for the core restroom spaces and other general exhaust, and shall utilize a total heat (enthalpy) recovery wheel.

Electrical Systems

Primary Electrical Service: This facility will be supported by the existing electrical concrete encased duct bank system that is located within the pedestrian mall to the east. Additional manholes and pad switches will need to be located in coordination with Westar Energy.

Building Electrical Distribution: The building will be fed from a pad-mounted utility company transformer. Secondary electrical service from the transformer will be routed underground to a main switchboard located in the lower level. The electrical service will be rated 277/480-volt, 3-phase, 4-wire. The switchboard will feed distribution panels located on each floor.

Diesel Generator: The building shall have a diesel generator with a weatherproof, sound attenuated enclosure and subbase fuel tank to provide emergency power for code-required life safety loads via an automatic transfer switch (ATS). The generator shall also provide backup power to the fire pump. The life safety ATS will serve emergency egress lighting, fire alarm system, emergency notification system provided by the Owner, and other life safety loads. The ATS will be located in the lower level in an electrical room separate from the normal power switchboard. Life safety panels will be located on each floor in the same rooms as normal power panels.

Fire Pump: The building will have an automatic fire sprinkler system and will require a fire pump. The fire pump shall be serviced from a separate utility service and shall also be fed from the diesel generator. Fire pump feeders shall be routed outside the building or shall be routed in a two-hour fire-rated enclosure.

Electrical Rooms: Shall be located on each floor and shall contain normal, life safety, and standby panels and transformers.

Site Lighting: Lighting for parking and pedestrian traffic shall match campus standards and be controlled via astronomic time clock and contactors.

General Lighting: Shall be provided by LED light fixtures for general lighting shall be considered as an alternate with 0- to 10-volt dimming. The building will require a lighting control system for public spaces to switch lights off after normal hours. Local override switches shall be provided for after normal hours use that will turn lights on in an area for a maximum of two hours. Private offices will utilize dual relay vacancy sensors. Vacancy sensors require input from the room occupant to initially turn the lights on and will automatically turn the lights off.

Exit Signs: Shall be LED with white, cast-aluminum housings and self-diagnostics. Egress lighting shall be connected to the generator via the life safety transfer switch. Egress lighting will be used as nightlights.

Firm Alarm: The building will require an NFPA 72 compliant fire alarm system consisting of manual pull stations, smoke detectors for elevator recall, and duct smoke detectors for mechanical air handling units 2,000 cfm or larger. Horns and strobes will provide occupant notification. The fire alarm system will monitor the fire sprinkler system via flow and tamper switches.

Telecommunications/network infrastructure: The building shall be fed from the existing communication facilities located in the site infrastructure. Redundant pathways are required into the building from the exterior fiber infrastructure. The main telecom room shall be located in the lower level of the building. Secure telecom closets shall be located on each floor. Pathways for backbone cabling shall be provided from the lower level to each floor telecommunication room. A telecommunication grounding system shall be provided and connected to the building electrical system ground.

Lightning Protection: An NFPA-compliant lightning protection shall be provided. A UL Master Label shall be provided for the installed system. A ground loop around the building shall be provided.

CODE CONSIDERATIONS

Codes: This facility shall be designed in accordance with all applicable codes as identified by the authority having jurisdiction (AHJ). At the time this document was completed, the Office of Facilities and Procurement Management (OFPM) was the authority. Please refer to their current website at www.da.ks.gov/fp for a list of the current codes. Applicable codes include but are not limited to the following:

International Building Code (IBC), 2018 Edition

K.S.A. 58-1301 et seq – 2010 ADA Standards for Accessible Design (2010 ADA Standards)

International Building Fire Code (IFC), 2018 Edition

International Plumbing Code (IPC), 2018 Edition

International Mechanical Code (IMC), 2018 Edition

International Fuel Gas Code (IFGC), 2018 Edition

International Energy Conservation Code (IECC), 2018 Edition or ASHRAE 90.1-2013

National Fire Protection Association, (NFPA), National Fire Codes and Standards

Kansas Fire Prevention Code

Kansas State Boiler Code

Construction Type: As a four-story building (not a high-rise), the structural components can be Type I or Type II.

Occupancy: The majority of the spaces will be classified as “B” occupancy with some accessory occupancies. There may be some incidental use areas that could require occupancy separations.

Height: The proposed four-story building based on the current program size and adjacencies will result in a building with the highest occupied floor well below 75 feet above grade. There could also be penthouses on the roof, but this will not impact the building height with the highest occupied floor lower than 75 feet above the lowest level for fire department vehicle access (grade level). So the height threshold of 75 feet for high-rise buildings should not be an issue.

Exterior Wall Fire Separation Distances: The proposed facility is intended to be built on an open site with surface parking on the north, Food Truck plaza/pond on the south, and t. Restrictions on openings and wall construction should not be an issue.

INFORMATIONAL SOURCES

This report contains information obtained from the original program and work sessions with the Client during January 20 through 24, 2014. This report also contains information obtained from work sessions with the Client during July through October of 2018. Other sources of information used to complete this report include:

- Comparative Facilities Study for the W. Frank Barton School of Business, dated April 1, 2010.
- Copy of Wichita State University Strategic Planning Initiative 2013, provided by the Dean's office.
- List of Faculty/Staff 2013-2014 for the W. Frank Barton School of Business, provided by the Dean's office.
- List of Faculty/Staff 2017-2018 for the W. Frank Barton School of Business, provided by the Dean's office.
- List of Adjunct Faculty for the W. Frank Barton School of Business.
- Student headcount, provided by the Dean's office.
- Classroom Schedules for Business School Classes of the 2018 Spring Semester
- Long-term growth projections for the Wichita State University campus.
- List of classrooms and capacity, supplied by the Dean's office.
- Organization chart for the W. Frank Barton School of Business.
- Facility tour of Kansas Leadership Center in Wichita, Kansas, as reference.
- Facility tour of the Bloch School of Business at UMKC, as reference.
- Facility tour of the Kansas State University College of Business Administration, as reference
- Facility tour of the University of Kansas Capital Federal Hall School of Business, as reference

- Kansas State University program for their new School of Business, as reference.
- Kansas University program for their new School of Business, as reference.
- 2014 WSU Comprehensive Campus Master Plan by Sasaki Associates and GLMV Architecture, Inc.
- Current WSU CAMPUS MASTER PLAN dated December 2018 by GLMV Architecture, Inc.

Wichita State University
Wichita, Kansas

PRELIMINARY PROJECT BUDGET

Wayne and Kay Woolsey Hall Home of W. Frank Barton School of Business

The preliminary cost estimate is based on the following assumption and facts

- * The costs are adjusted for the economic conditions of Wichita, Kansas
- * Budget was originally prepared using 2014 Dollars
- * Budget is updated for inflation for 2018 Dollars.

Item	Area	Cost/SF	Cost
A. Building Cost			
Woolsey Hall	130900	270 \$	35,343,000
<hr/>			
Subtotal Building Cost		\$	35,343,000
B. Fixed Equipment (X% of Building Cost)		2% \$	706,860
C. Site Development (X% of Building Cost)		5% \$	1,767,150
Demolition		\$	-
<hr/>			
Subtotal Construction/Fixed Equipment/Site Costs		\$	37,817,010
Inflation at 3%/yr to midpoint of construction		0% \$	-
D. Total Construction (A+B+C)		\$	37,817,010
E. Site Acquisition		0% \$	-
F. Fixtures, Furniture & Equipment (X% of Building Cost)		5.0% \$	1,767,150
G. IT Costs		\$	600,000
H. AV		\$	2,750,000
I. Security (# of Doors * \$2500)	235 \$	2,500 \$	587,500
J. Installation/Moving Costs		\$	150,000
K. Professional Fees (X% of D)(includes survey and geotech)		6% \$	2,120,580
L. Contingency (X% of D)		7% \$	2,474,010
M. Foundation Costs (5% of \$30 Million)		\$	1,500,000
N. State (OFPM) Fee		\$	234,147
O. Total Budget Required (D through N)		\$	50,000,397

WAYNE AND KAY WOOLSEY HALL
HOME OF W. FRANK BARTON SCHOOL OF BUSINESS

REQUEST FOR QUALIFICATIONS (RFQ)	2 MONTHS
Issue RFQ	
Responses Back from Firms	4 Weeks
Short List Firms and Prepare for Interviews	2 Weeks
Interviews and Selection	1 Week
Negotiate Agreement	1 Week
Notice to Proceed	
SCHEMATIC DESIGN	3 MONTHS
Surveys/Geotechnical Reports	3 Weeks
50 Percent Schematic Design (Overlap with Reports)	6 to 7 Weeks
Review Meeting	
100 Percent Schematic Design/Cost Estimate	4 to 5 Weeks
State Review and Approval	
DESIGN DEVELOPMENT	3 MONTHS
50 Percent Design Development	6 to 7 Weeks
Review Meeting	
100 Percent Design Development/Update Cost Estimate	4 to 5 Weeks
State Review and Approval	
Submittal of Final Code Footprint	
CONSTRUCTION DOCUMENTS	3 MONTHS
50 Percent Construction Documents	6 to 7 Weeks
Review Meeting	
100 Percent Construction Documents/Final Cost Estimate	4 to 5 Weeks
State Review and Approval	
BIDDING	1 TO 2 MONTHS
Issue Documents for Bid	
Addenda as Needed	Ongoing
Accept Bids	4 Weeks
Select General Contractor	
Schedule of Values/Insurance/Contracts	2 Weeks
ESTIMATED CONSTRUCTION	16 MONTHS
Notice to Proceed/Staging	2 Weeks
Construction	54 Weeks
Furniture Installation	4 to 6 Weeks
End User Moves into Building	4 Weeks
TOTAL ESTIMATED TIMELINE	29 MONTHS

UNION

FUTURE - 2

**WONDER
SCHOOL**

**BUSINESS
SCHOOL
142,898 SF**

**PARTNER
BUILDING
60,000**













**FOOD TRUCK
PLAZA**

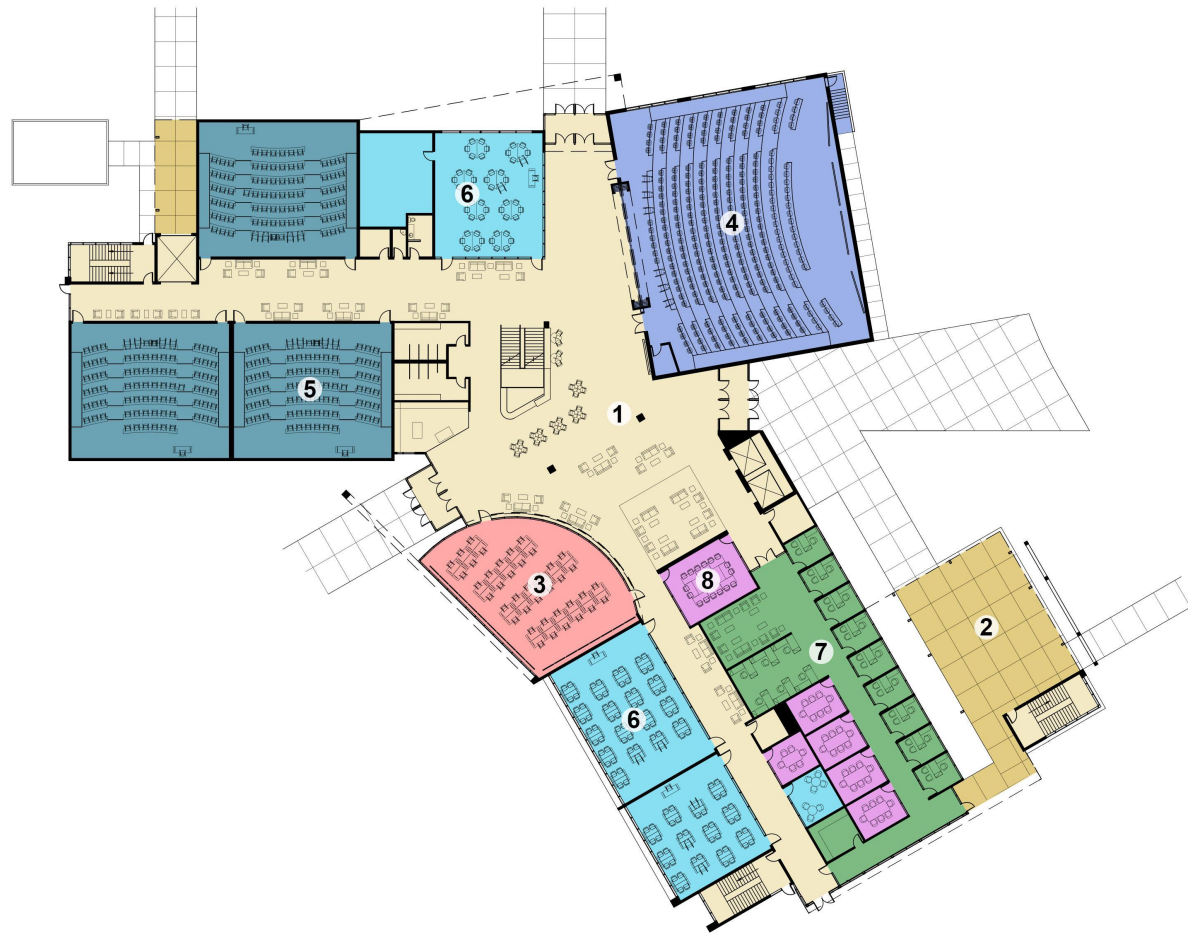
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









-  1. Main Lobby/
Commons Spaces
-  2. Covered Patio
-  3. Global Trading Center
-  4. Auditorium
-  5. Tiered Classrooms
-  6. Classrooms
-  7. Offices
-  8. Conference/ Seminar
-  9. Faculty/ Staff Lounge
-  10. Dean's Office
-  11. Board Room
-  12. TBD



1ST FLOOR CONCEPT PLAN



LEGEND













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2ND FLOOR CONCEPT PLAN



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










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3RD FLOOR CONCEPT PLAN



LEGEND

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4TH FLOOR CONCEPT PLAN





WOOLSEY HALL

WAYNE AND KAY
WOOLSEY HALL

WAYNE AND KAY WOOLSEY HALL